

Barclay et al.
U.S.S.N. 10/690,217
Page 2

This listing of claims will replace all prior versions of claims in the application.

Claim 1 (previously presented) A positive-acting photoimageable composition comprising a photoactive component and a polymer component, the polymer component comprising a polymer that comprises Si atoms and silanol groups, wherein the polymer has a ratio of silanol groups to Si atoms of about 0.15 to 0.4, and the polymer comprises one or more moieties select from the group consisting of fluorinated alcohol, sulfonamide, carboxylic acid and/or thiol.

Claims 2-11 (cancelled)

Claim 12 (previously presented) The photoimageable composition of claim 1 wherein the polymer contains at least about 20 mole percent of fluorinated alcohol, sulfonamide, carboxylic acid and/or thiol moieties based on total units of the polymer.

Claims 13-14 (cancelled)

Claim 15 (previously presented) The photoimageable composition of claim 1 wherein the polymer contains at least about 50 mole percent fluorinated alcohol, sulfonamide, carboxylic acid and/or thiol moieties based on total units of the polymer.

Claim 16 (previously presented) The photoimageable composition of claim 1 wherein the polymer comprises units that are free of photoacid-labile groups and.

Claim 17 (previously presented) The photoimageable composition of claim 1 wherein the polymer comprises at least two distinct repeat units.

Barclay et al.
U.S.S.N. 10/690,217
Page 3

Claims 18-20 (cancelled)

Claim 21 (previously presented) The photoimageable composition of claim 1 wherein the composition is a chemically-amplified positive acting photoresist.

Claims 22-29 (cancelled)

Claim 30 (previously presented) A coated substrate comprising:

- a) a polymer composition coating layer applied over a substrate surface;
- b) a coating layer of a photoimageable composition of claim 1 disposed over the polymer composition coating layer.

Claims 31-36 (cancelled)

Claim 37 (previously presented) A coated substrate of claim 30 wherein the polymer composition does not contain a polymer with Si groups.

Claim 38 (previously presented) A coated substrate of claim 30 wherein the polymer composition is not photoimageable.

Claim 39 (previously presented) A method for forming a electronic device, comprising:

- (a) applying on a substrate a coating layer of a polymer composition;
- (b) over the polymer composition coating layer, applying a photoimageable composition of claim 1;
- (c) exposing the photoimageable composition coating layer to activating radiation and developing the exposed photoimageable layer.

Barclay et al.
U.S.S.N. 10/690,217
Page 4

Claim 40 (original) The method of claim 39 wherein a coating layer of the photoimageable composition coating layer is exposed with radiation having a wavelength of about 248 nm.

Claim 41 (original) The method of claim 39 wherein a coating layer of the photoimageable composition coating layer is exposed with radiation having a wavelength of less than about 200 nm.

Claim 42 (original) The method of claim 39 wherein a coating layer of the photoimageable composition coating layer is exposed with radiation having a wavelength of about 193 nm or 157 nm.

Claims 43-59 (cancelled)

Claim 60 (previously presented) The method of claim 39 wherein the substrate is a silicon wafer.

Claim 61-62 (cancelled)

Claim 63 (previously presented) The photoimageable composition of claim 1 wherein the polymer comprises one or more moieties select from the group consisting of fluorinated alcohol and carboxylic acid.

Claim 64 (previously presented) The photoimageable composition of claim 1 wherein the polymer comprises one or more moieties selected from the group consisting of sulfonamide and thiol.

Barclay et al.
U.S.S.N. 10/690,217
Page 5

Claim 65. (previously presented) A positive-acting photoimageable composition comprising a photoactive component and a polymer component, the polymer component comprising a polymer that comprises Si atoms and silanol groups, wherein the polymer has a ratio of silanol groups to Si atoms of about 0.05 to 0.4, and the polymer comprises one or more moieties select from the group consisting of sulfonamide and thiol.